

Claims

- [c1] 1. A computer case structure for accommodating a host computer, the host computer comprising at least a plurality of slots for installing input/output devices and an optical system installed in one of the slots, the computer case comprising:
- a sliding mechanism;
 - a sliding panel coupled to the computer case through the sliding mechanism such that the sliding panel may slide relative to the computer case between a first terminal position and a second terminal position such that the optical system may be substantially enclosed inside the computer case when the sliding panel is at the first terminal position and a front panel of the optical system is exposed from the computer case to facilitate a tray of the optical system from moving in and out of the optical system when the sliding panel is at the second terminal position; and
 - a driving device mounted between the computer case and the sliding panel for moving the sliding panel relative to the computer case.
- [c2] 2. The computer case structure of claim 1 wherein the

sliding mechanism linking the sliding panel with the computer case comprises a sliding groove and a sliding element that the sliding element is inserted into the sliding groove, wherein the sliding groove is formed on the computer case and the sliding element is attached to the sliding panel.

[c3] 3. The computer case structure of claim 1 wherein the sliding mechanism linking the sliding panel with the computer case comprises a sliding groove and a sliding element that the sliding element is inserted into the sliding groove, wherein the sliding groove is formed on the sliding panel and the sliding element is attached to the computer case.

[c4] 4. The computer case structure of claim 1 wherein the driving device comprises an electric motor with a gear wheel that meshes with a rack with gear teeth lining a surface of the rack, wherein the electric motor is attached to the computer case and the rack is attached to the sliding panel.

[c5] 5. The computer case structure of claim 1 wherein the driving device comprises an electric motor with a gear wheel that meshes with a rack with gear teeth lining a surface of the rack, wherein the electric motor is attached to the sliding panel and the rack is attached to the com-

puter case.

- [c6] 6. The computer case structure of claim 1 wherein a back of the sliding panel has an arc-shaped body such that the sliding panel slides along a circular arc relative to the computer case.
- [c7] 7. The computer case structure of claim 1 further comprising a liquid crystal module mounted on the sliding panel for showing current operating states of the optical system or multimedia states playing by the host computer.
- [c8] 8. The computer case structure of claim 7 wherein the liquid crystal module comprises a touch-sensitive liquid crystal display.
- [c9] 9. The computer case structure of claim 1 further comprising a control mechanism for controlling movements of the sliding panel and the tray of the optical system.
- [c10] 10. The computer case structure of claim 9 wherein the tray of the optical system is moved out from the computer case after the sliding panel being switched from the first terminal position to the second terminal position when the control mechanism is actuated.
- [c11] 11. The computer case structure of claim 9 wherein the

tray of the optical system is moved into the computer case before the sliding panel being switched from the second terminal position to the first terminal position when the control mechanism is actuated again.

[c12] 12. The computer case structure of claim 9 further comprising a sensing device for monitoring a position of the tray so as to prevent jamming while the tray is moving.

[c13] 13. A computer case structure for accommodating a host computer, the host computer comprising a plurality of slots for installing input/output devices and an optical system installed in one of the slots, the computer case comprising:

a sliding panel coupled to the computer case through a sliding mechanism, wherein the sliding panel slides relative to the computer case between a first terminal position and a second terminal position such that the optical system is substantially enclosed inside the computer case when the sliding panel is at the first terminal position, and a front panel of the optical system is substantially exposed from the computer case to facilitate a tray of the optical system from moving in and out of the optical system when the sliding panel is at the second terminal position; and

a control mechanism for controlling movements of the sliding panel and the tray of the optical system, wherein

the control mechanism is actuated to make the tray of the optical system being moved out from the computer case after the sliding panel being switched from the first terminal position to the second terminal position, and when the control mechanism is actuated again, the tray of the optical system is moved into the computer case before the sliding panel being switched from the second terminal position to the first terminal position.

[c14] 14. The computer case structure of claim 13 wherein the sliding mechanism linking the sliding panel with the computer case comprises a sliding groove and a sliding element that the sliding element is inserted into the sliding groove, wherein the sliding groove is formed on the computer case and the sliding element is attached to the corresponding sliding panel.

[c15] 15. The computer case structure of claim 13 wherein the sliding mechanism linking the sliding panel with the computer case comprises a sliding groove and a sliding element that the sliding element is inserted into the sliding groove, wherein the sliding groove is formed on the sliding panel and the sliding element is attached to the corresponding computer case.

[c16] 16. The computer case structure of claim 13 wherein the driving device comprises an electric motor with a gear

wheel that meshes with a rack with gear teeth lining a surface of the rack and the electric motor is attached to the computer case and the rack is attached to the sliding panel.

- [c17] 17. The computer case structure of claim 16 wherein when the electric motor is attached to the computer case, the rack is attached to the sliding panel, and when the electric motor is attached to the sliding panel, the rack is attached to the computer case.
- [c18] 18. The computer case structure of claim 13 wherein a back of the sliding panel has an arc-shaped body such that the sliding panel slides along a circular arc relative to the computer case.
- [c19] 19. The computer case structure of claim 13 further comprising a liquid crystal module mounted on the sliding panel for showing current operating states of the optical system or multimedia states playing by the host computer.
- [c20] 20. The computer case structure of claim 19 wherein the liquid crystal module comprises a touch-sensitive liquid crystal display.